IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Westerman, Larry	Group Art Unit: 2721
Serial No.: 08/985,576	Examiner: Mr. Desire
Filed : 12/05/97	
Title : DOCUMENT CLASSIFICATION SYSTEM	

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April 17, 2001

Commissioner for Patents
Washington, DC 20231

APPEAL BRIEF ON BEHALF OF APPLICANT

Dear Sir:

BACKGROUND

This brief is in furtherance of the Notice of Appeal, filed herewith for this case.

The fee required under 37 C.F.R. § 117 accompanies the Notice of Appeal.

This brief is transmitted in triplicate. (37 C.F.R. 1.192(a))

This brief comprises these subjects under the headings, and in the order, set forth below:

     I.   Real Party in Interest

     II.   Related Appeals and Interferences

     III. Status of Claims

     IV. Status of Amendments

     V.   Summary of Invention

VI. Issues

VII. Grouping of Claims

VIII. Argument

IX. Conclusion

X. Appendix

The final page of this brief bears the practitioner's signature.

Real Party in Interest

The real parties in interest in this appeal is the party in the caption of this brief who has assigned their rights to Sharp Laboratories of America, Inc.

Related Appeals and Interferences

There are no other appeals or interferences that will directly affect, or be directly affected by, or have a bearing on the Board's decision in this appeal.

Status of Claims

A. Total Number of Claims in the Application - 34

B. Status of All Claims

Claims canceled: 6 and 15

Claims withdrawn: None

Claims pending: 1-5, 7-14 and 16-36

Claims allowed: None

Claims rejected: 1-5, 7-14 and 16-36

C. Claims on Appeal

Claims 1-5, 7-14 and 16-36 are on appeal.

A copy of the claims on appeal is set forth in the Appendix to this Brief.

Status of Amendments

No amendment has been filed subsequent to final rejection.

Summary of Invention

The Appellant's invention relates to an image system with an imaging device that obtains and presents at least one image. An eye gaze system associated with the imaging device determines a non-closed loop portion of the at least one image that an eye of a viewer observes. The image system associates the at least one image with the non-closed loop portion of the at least one image. An image processor analyzes the image based at least in part on the image itself together with data representative of the gaze information to determine the content of the image, where the gaze information is a non-closed loop portion of the image that an eye of a viewer observes. The image system associates the content with the image.

Issues

The issue presented for review is whether claims 1-5, 7-14, and 16-36 are patentable under 35 U.S.C. § 102(e) over Yamasaki et al., U.S. Patent No. 5,627,586.

Grouping of Claims

For the purposes of this appeal:

1. Claims 1-5, 7-14, and 16-36 should be treated as the sole group for the issue presented (patentability over Yamasaki et al., U.S. Patent No. 5,627,586).

Argument

I.   Are claims 1-5, 7-14, and 16-36 patentable under 35 U.S.C. § 102 over Yamasaki et al., U.S. Patent No. 5,627,586?

In the office action of March 27, 2001 claims 1-36 (albeit properly they were claims 1-5, 7-14, and 16-36) were rejected under 35 U.S.C. § 102(e) as being anticipated by Yamasaki et al, U.S. Patent No. 5,627,586. The Appellant submits, that to anticipate under 35 U.S.C. § 102, "the reference must teach every aspect of the claimed invention, either explicitly or impliedly; any feature not directly taught must be inherently present," MPEP 706.02(a).

Yamasaki et al. disclose a moving body detection device to correctly detect an area in which a target moving body is present even when the camera moves. The device includes a gazing point P, as illustrated in FIG. 2A, that is a single point moved to a position near an object OBJ by the operator. Turning the switch (SW) on superimposes a moving body detection zone of large area, based on a region around the single gazing point P, as shown in FIG. 2B. Next the moving body area is specified and the tracking operation is started, as shown in FIG. 2C. In order to determine whether the camera or the object is moving, the system uses motion vector detection areas indicated by s1-s4 for determining the movement of the camera. In other words, the motion vector detection areas s1-s4 detect overall camera motion. Accordingly, the viewer does not observe s1-s4 in combination with the eye gaze system nor does the regions s1-s4 have any relationship to the eye gaze system, as claimed.

The Examiner suggests that FIG. 6 of Yamasaki et al. shows an image plane with several regions s1-s4, which the Examiner interprets as being portions of the image. The Examiner further suggests that region s1 is in the image plane and thus there is some association with the image. However, the viewer does not observe s1-s4 in combination with the eye gaze system nor do the regions s1-s4 have any relationship to the eye gaze system.

The Examiner further suggests that Yamasaki disclose the eye of a viewer which observes a line of sight of a desired area in the image plane (see FIGS. 4, 5, and 6 in connection with column 6, lines 8-10). The Examiner specifically pointed out column 6, lines 8-10 of Yamasaki et al. which disclose diagrams showing the principle for detection the direction of a line of sight and indicating a desired area in the image plane based on the detected direction. In other words, this portion of Yamasaki et al. is directed toward identification of a desired area in the image plane. However, the result of the detection of the direction of the line of sight is a single gazing point P, as previously described, which is associated with the image.

Claims 1, 12, 19, and 28 clearly patentably distinguish over Yamasaki et al. by claiming that the non-closed loop portion includes multiple points of the at least one image that an eye of a viewer observes wherein the viewer observes each of the multiple points. The system associates the at least one image with each of the multiple points of the non-closed loop portion of the image. For the assistance of the appeal board an Exhibit A includes an example of a closed loop

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and Exhibit B includes an example of a non-closed loop, as previously submitted with an amendment filed July 23, 1999.

Yamasaki et al. at most discloses an image system where an eye gaze system identifies a single gazing point P, as illustrated in FIG. 2A, that is used to locate a moving body detection zone, as shown in FIG. 2B. In contrast, claims 1, 12, 19, and 28 require multiple points that the eye of a viewer observes to be associated with the image. It is noted that regions s1-s4 <u>are not regions observed by the viewer and associated with the image</u>.

Claims 2-5, 7-11, 13- 15, 17-18, 20-27, and 29-36 depend from their respective independent claims and are patentable for the same reasons asserted for their respective independent claim.

Conclusion

The Appellants respectfully submit that the Examiner's final rejection of claims 1-5, 7-14, and 16-36 for anticipation under 35 U.S.C. § 102 should be reversed and, consequently, the claims should be found patentable.

Respectfully submitted,

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APPENDIX

1. An image system comprising:

    (a)   an imaging device that at least one of obtains and presents at least one image;

    (b)   an eye gaze system associated with said imaging device that determines a non-closed loop portion including multiple point of said at least one image that an eye of a viewer observes wherein said viewer observes each of said multiple points; and

    (c)   said image system associating said at least one image with said each of said multiple points of said non-closed loop portion of said at least one image.

2. The image system of claim 1 wherein said imaging device is at least one of a film based still camera, a film based video camera, a digital based still camera, and a digital based video camera.

3. The imaging system of claim 1 wherein said imaging device presents said at least one image to said user at a time subsequent to recording said image.

4. The imaging system of claim 1 wherein said eye gaze system is integral with said imaging device.

5. The imaging system of claim 1 wherein said non-closed loop portion is within said at least one image.

7. The imaging system of claim 1 wherein said non-closed loop portion is a region of said image.

8. The imaging system of claim 1 wherein said image system associating is storing said non-closed loop portion on a recording media of said imaging device.

9. The imaging system of claim 1 wherein said non-closed loop portion is used at the basis to define a closed-loop portion of said at least one image.

10. The imaging system of claim 1 wherein said at least one image is said obtained substantially contemporaneously with said non-closed loop portion.

11. The imaging system of claim 1 further comprising an image processor that identifies the content of said at least one image based on the content of the image together with said non-closed loop portion.

12. An image system comprising:
    (a)   an image processor which analyzes an image based at least in part on said image itself together with data representative of gaze information to determine the content of said image, where said gaze information is a non-closed loop portion including multiple points of said image that an eye of a view observes wherein said viewer observes each of said multiple points; and
    (b)   said imaging system associating said content, determined based at least in part upon said multiple points with said image.

13. The image system of claim 12 wherein said gaze information is transformed into a closed loop portion of said image and said image processor analyzes said image based at least in part on said image itself together with said closed loop portion to determine the content of said image.

14. The imaging system of claim 12 wherein said non-closed loop portion is within said at least one image.

16. The imaging system of claim 12 wherein said non-closed loop portion is a region of said image.

17. The imaging system of claim 12 wherein said image processor includes at least one of shape identification, texture identification, color identification, and spatial identification.

18. The imaging system of claim 12 further comprising storing said content in a database.

19. An imaging system comprising:
   (a)   an imaging device that at least one of obtains and presents at least one image;
   (b)   an eye gaze system associated with said imaging device that determines a non-closed loop portion including multiple points of said at least one image that an eye of a viewer observes wherein said viewer observes each of said multiple points;
   (c)   said image system associating said at least one image with said each of said multiple points of said non-closed loop portion of said at least one image; and
   (d)   said imaging device is at least one of a film based still image camera and a digital based still image camera.

20. The imaging system of claim 19 wherein said eye gaze system is integral with said imaging device.

21. The imaging system of claim 19 wherein said non-closed loop portion is within said at least one image.

22. The imaging system of claim 19 wherein said non-closed loop portion is a point within said at least one image.

23. The imaging system of claim 19 wherein said non-closed loop portion is a region of said image.

24. The imaging system of claim 19 wherein said image system associating is storing said non-closed loop portion on a recording media of said imaging device.

25. The imaging system of claim 19 wherein said non-closed loop portion is used as the basis to define a closed-loop portion of said at least one image.

26. The imaging system of claim 19 wherein said at least one image is said obtained substantially contemporaneously with said non-closed loop portion.

27. The imaging system of claim 19 further comprising an image processor that identifies the content of said at least one image based on the content of the image together with non-closed loop portion.

28. An imaging system comprising:
   (a)   an imaging device that at least one of obtains and presents at least one image;
   (b)   an eye gaze system associated with said imaging device that determines a non-closed loop portion including multiple points of said at least one image that an eye of a viewer observes wherein said viewer observes each of said multiple points;

(c) said image system associating said at least one image with said each of said multiple points of said non-closed loop portion of said at least one image; and

(d) an image processor that identifies the content represented by said at least one image based on the content of the image together with said non-closed loop portion.

29. The image system of claim 28 wherein said imaging device is at least one of a film based still camera, a film based video camera, a digital based still camera, and a digital based video camera.

30. The imaging system of claim 28 wherein said eye gaze system is integral with said imaging device.

31. The imaging system of claim 28 wherein said non-closed loop portion is within said at least one image.

32. The imaging system of claim 28 wherein said non-closed loop portion is a point within said at least one image.

33. The imaging system of claim 28 wherein said non-closed loop portion is a region of said image.

34. The imaging system of claim 28 wherein said image system associating is storing said non-closed loop portion on recording media of said imaging device.

35. The imaging system of claim 28 wherein said non-closed loop portion is used at the basis to define a closed-loop portion of said at least one image.

36. The imaging system of claim 28 wherein said at least one image is said obtained substantially contemporaneously with said non-closed loop portion.

EXHIBIT A

NON-CLOSED LOOPS

EXHIBIT B